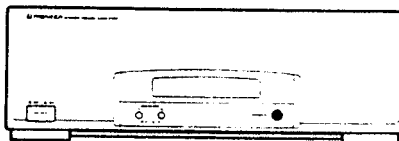


Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
ARP2644

STEREO POWER AMPLIFIER

M-J410

M-J310

M - J410 AND M - J310 HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	M - J410	M - J310		
HB	○	○	AC220V - 230V, 230V - 240V (switchable)*	
HE	○	○		
HEWZIW	○	○		
SD	-	○	AC110V, 120 - 127V, 220V, 240V (switchable)	
SL	-	○	AC110V, 120V, 220V, 240V (switchable)	

* Change the connection of the power transformer's primary wiring.

- This manual is applicable to the following : M - J410/HB, HE and HEWZIW ; M - J310/HB, HE, HEWZIW, SD and SL.
- For the following : M - J410/HE, HEWZIW ; M - J310/HB, HE, HEWZIW, SD and SL, refer to page 19.
- These products are systems components. Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.

CONTENTS

1. EXPLODED VIEWS, PACKING AND PARTS LIST	2
2. SCHEMATIC DIAGRAMS	6
3. PCB CONNECTION DIAGRAMS	9
4. PCB PARTS LIST	17
5. FOR M - J410/HE, HEWZIW, M - J310/HB, HE, HEWZIW, SD AND SL	19
6. PANEL FACILITIES	24
7. SPECIFICATIONS	25

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
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1. EXPLODED VIEWS, PACKING AND PARTS LIST

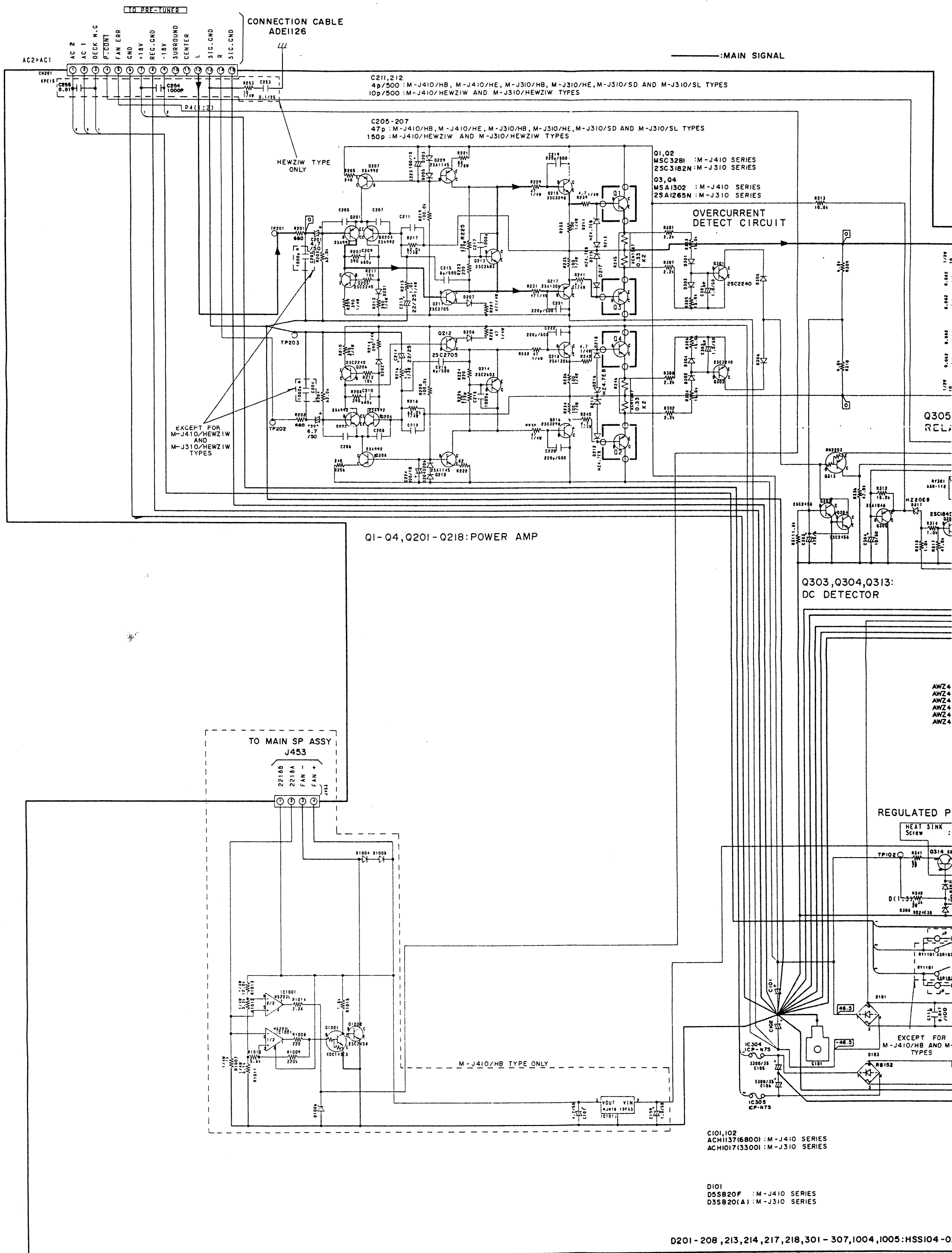
NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

● Parts List

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	Chassis (MTL)	ANA1194	⊙	31	HP assembly	AWZ4413
	2	Foot assembly	RXA1448	⊙	32	DISPLAY assembly	AWZ4420
	3	Foot assembly(S)	AMR1937	⊙	33	SWITCH assembly	AWZ4983
NSP	4	Chassis cover	ANG1627		34	Nylon rivet	AEP-194
NSP	5	PCB Support	AEC1217	NSP	35	PIONEER badge	AAM1047
NSP	6	PCB Support	AEC1216	NSP	36	SP change SW	AAD2339
NSP	7	PCB Mold	AMP	NSP	37	Reinforced plate	ANG1635
NSP	8	PCB Support	AF		38	Screw	BBZ30P080FZK
⊙	9	P.A assembly	A		39	Screw	ABA1011
⊙	10	MAIN SP assembly	AWZ4987		40	Screw	ABA1184
⊙	11	REAR SP assembly	AWZ4403		41	Screw	BBZ30P060FZK
NSP	12	REAR Panel (MTL)	ANC1952		42	Screw	ABA1095
	13	Fan motor	AXM1013		43	Screw	BBZ26P080FMC
Δ	14	AC cord stopper	AEC-882		44	Screw	PPZ50P100FZK
Δ	15	AC power cord	ADG1067		45	Screw	ABA1054
	16	Connection cable	ADE1126		46	Screw	ABA1024
NSP	17	Heat sink	ANH1401		47	Screw	ABA1082
NSP	18	PCB Holder plate	ANG1609		48	Transistor (Q1, Q2)	MSC3281
⊙	19	PRIMARY assembly	AWZ4415		49	Transistor (Q3, Q4)	MSA1302
	20	.....			50	Mica sheet	AEE1014
Δ	21	FUSE (FU1, T2.5A)	AEK-512		51	Bonnet	ANE1381
	22	Barrier	AEC1478	NSP	52	Caution label	AAX1679
NSP	23	Binder	AEP-215				
Δ	24	Power transformer (T1)	ATS1460				
⊙	25	TRANS assembly	AWZ4410				
	26	Front panel (PLS)	AMB2047				
	27	Sub panel (PLS)	AAP1325				
	28	Sheet (PLS)	AAK2368				
	29	FL panel	AAK2386				
	30	Power button	AAD2338				

2. SCHEMATIC DIAGRAMS



Note:

1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

(Type 1)

3. RESISTORS:

Unit: k:Q, M:MQ, or Q unless otherwise noted.
Rated power: 1/4W, 1/5W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.

4. CAPACITORS:

Unit: p:F or μ F unless otherwise noted.
Ratings: capacitor (μ F)/ voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

5. COILS:

Unit: m:mH or μ H unless otherwise noted.

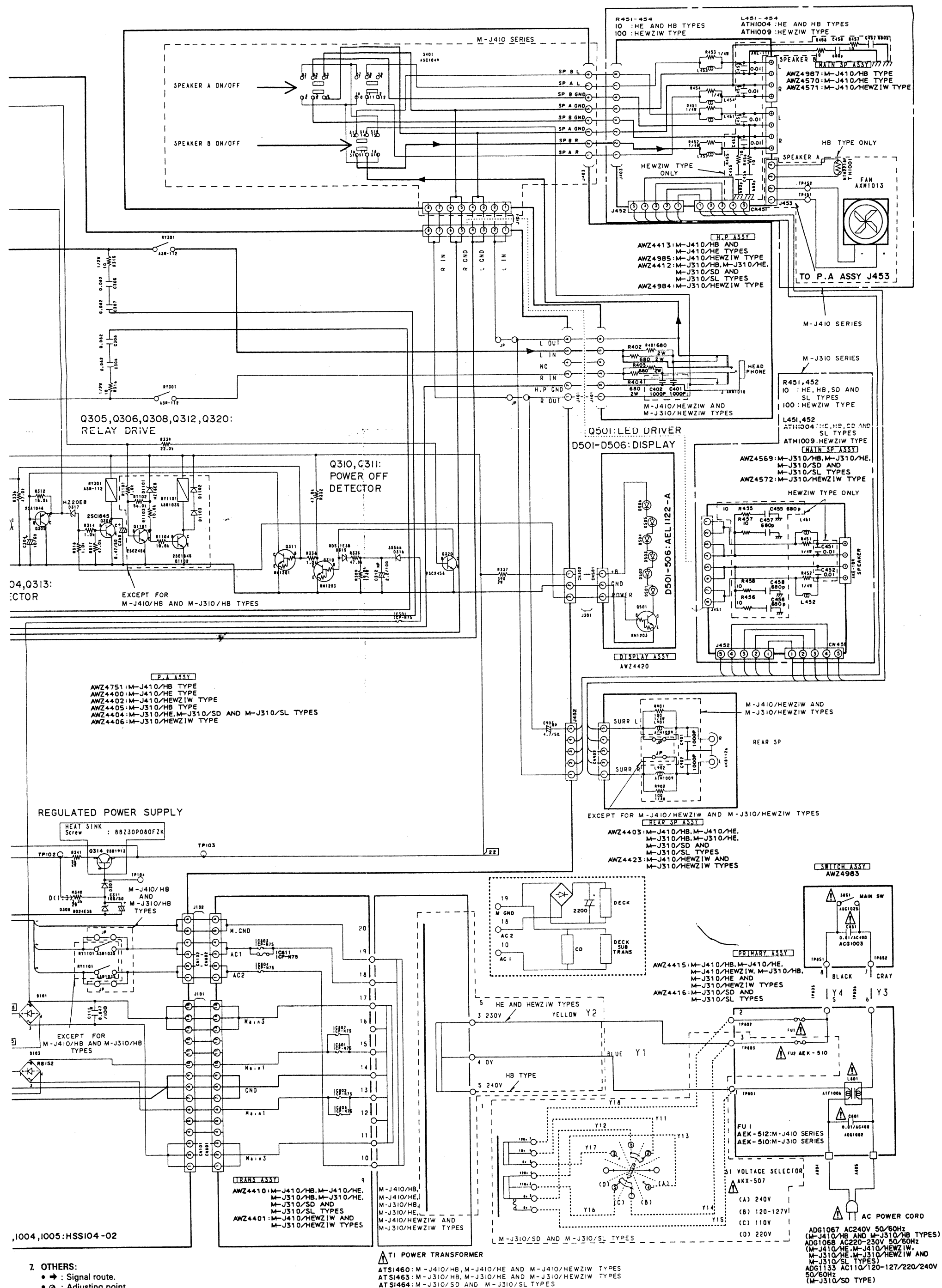
6. VOLTAGE AND CURRENT:

 : Signal voltage at rated output.
 : DC voltage (V) at no input signal unless otherwise noted.
 Value in () is DC voltage at rated power.
 ⇐ mA or -mA : DC current at no input signal unless otherwise noted.

7. OTHERS:

- ➔ : Signal route
- ⊗ : Adjusting point
- ▼ (Red) : Measurement point
- The ▲ mark found on the map indicates the importance of the signal. When placing, be sure to place it correctly.

D201 - 208 , 213, 214 , 217, 218, 301 - 307, 1004, 1005: HSSI04 - 0



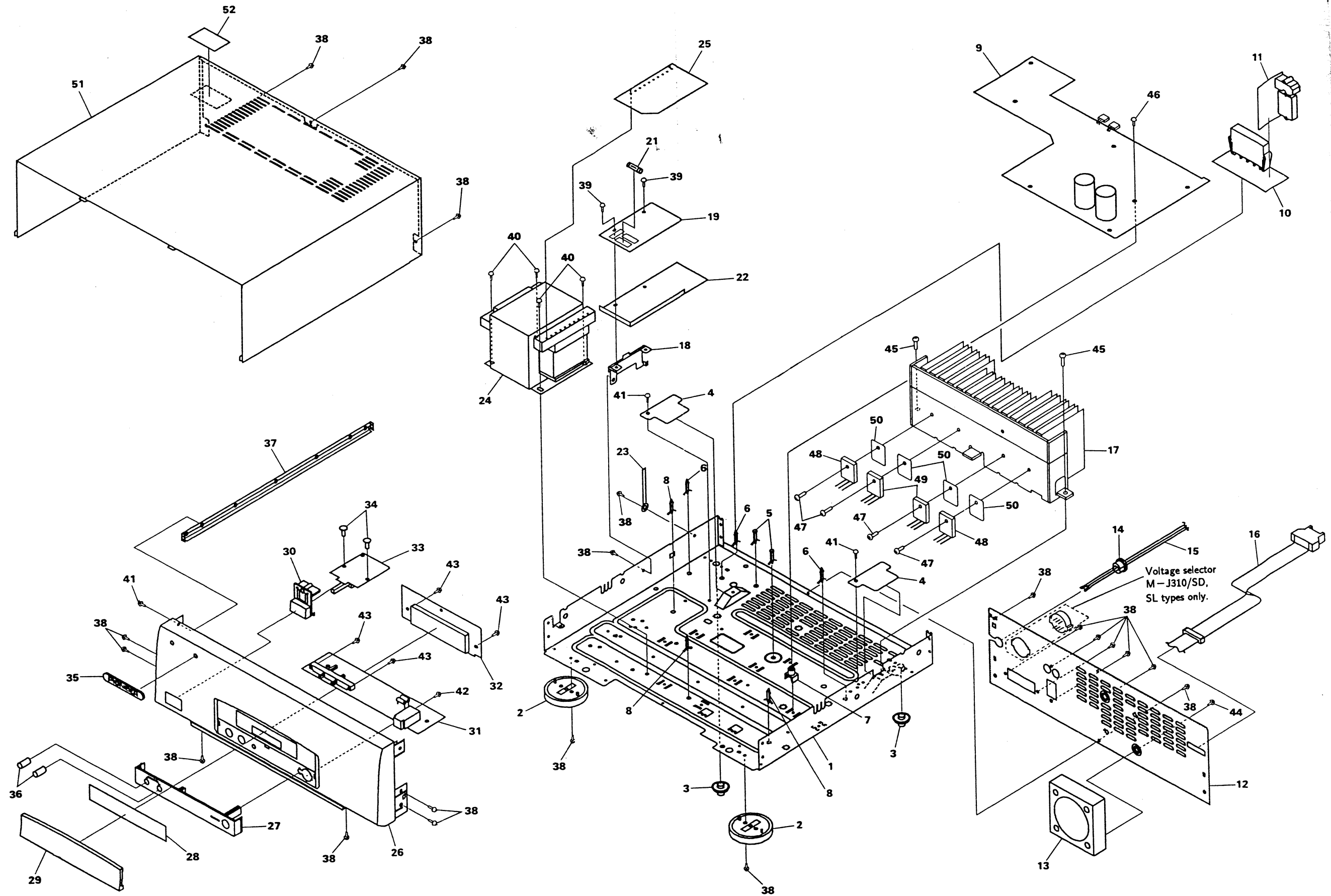
● Exploded views

C

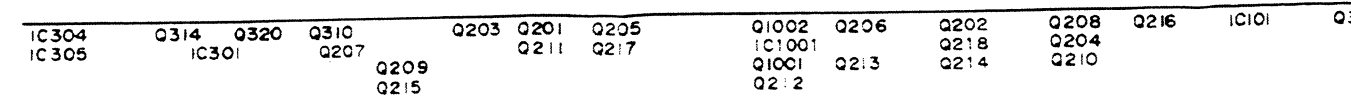
D

E

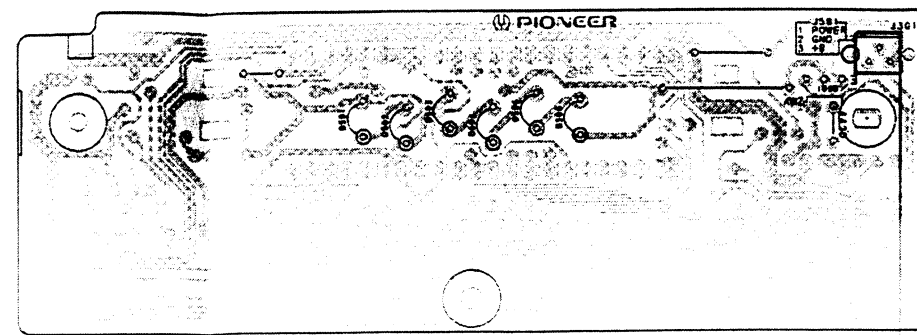
F



D



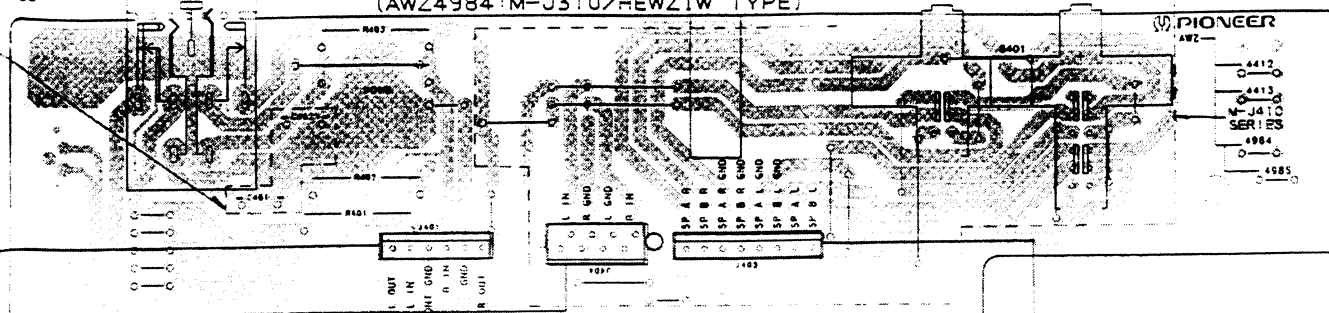
DISPLAY ASSY (AWZ4420)



Q501

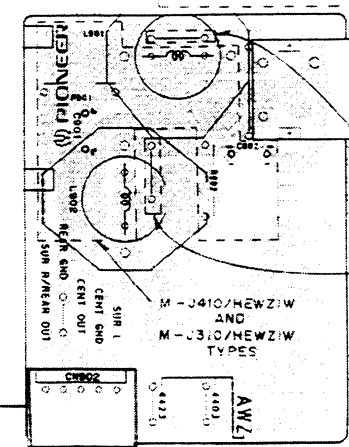
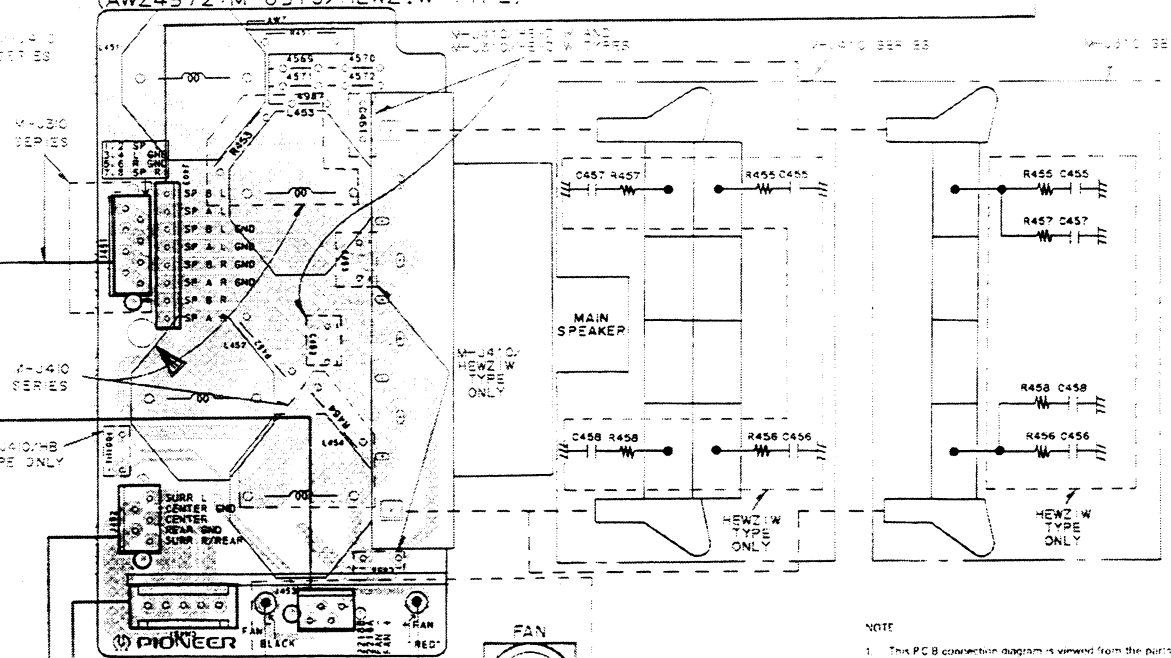
H. P. ASSY (AWZ4413: M-J410/HB AND M-J410/HE TYPES)

(AWZ4985: M-J410/HEWZIW TYPE)
(AWZ4412: M-J310/HB, M-J310/HE, M-J310/SD AND M-J310/SL TYPES)
(AWZ4984: M-J310/HEWZIW TYPE)



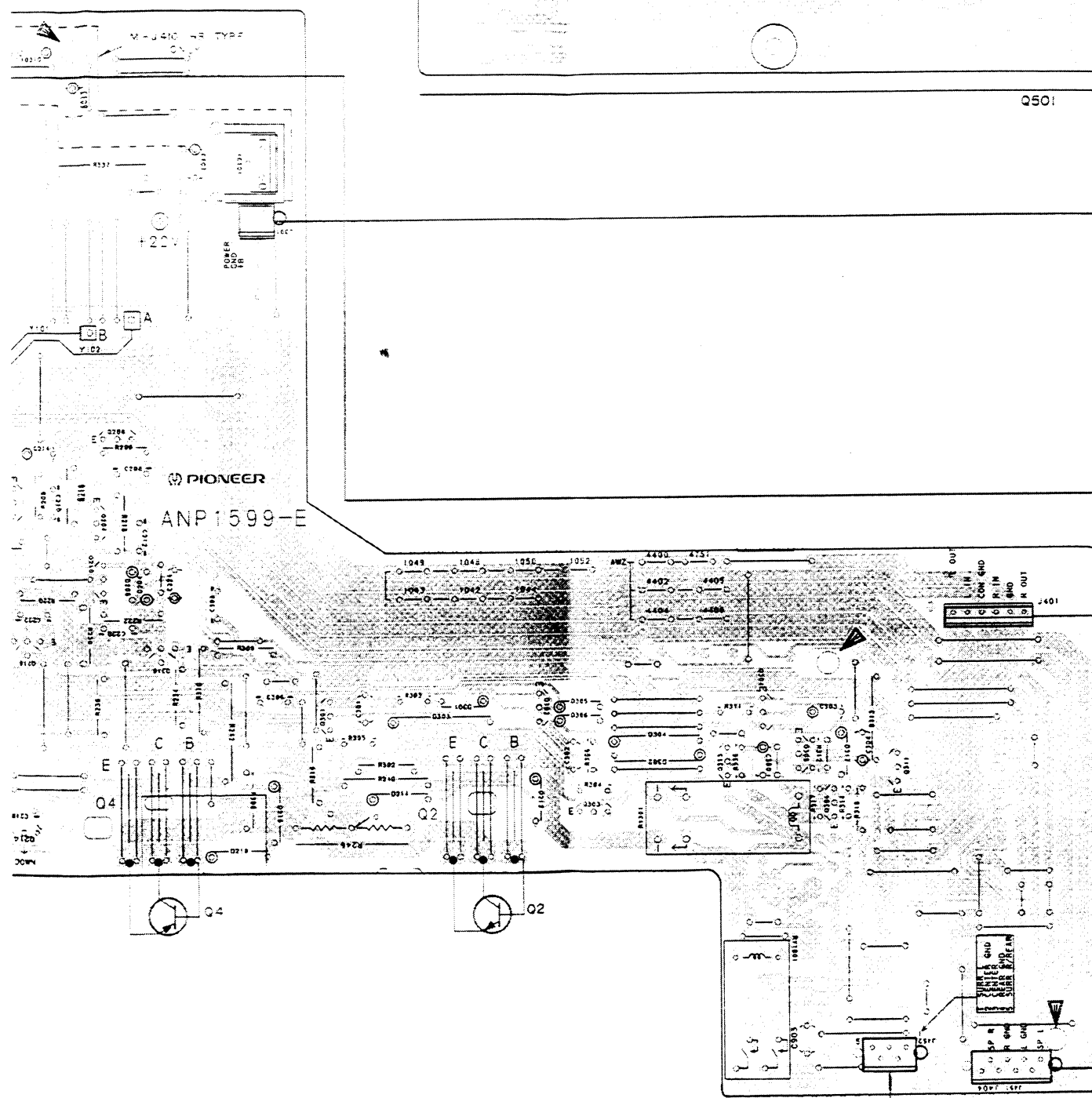
MAIN SP ASSY

(AWZ4987: M-J410/HB TYPE)
(AWZ4970: M-J410/HB TYPE)
(AWZ4971: M-J410/HEWZIW TYPE)
(AWZ4969: M-J310/HB, M-J310/HE, M-J310/SD AND M-J310/SL TYPES)
(AWZ4972: M-J310/HEWZIW TYPE)



REAR SP ASSY

(AWZ4423: M-J410/HB, M-J410/HE, M-J310/HB, M-J310/HE, M-J310/SD AND M-J310/SL TYPES)
(AWZ4423: M-J410/HEWZIW AND M-J310/HEWZIW TYPES)



Q208 Q216 IC101 Q301 Q302 Q303 Q313 Q304 Q306 Q311 Q305

NOTE

1. This PCB connection diagram is viewed from the parts indicated.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring numbers listed in the following table.

PCB pattern diagram indication	Corresponding part symbol	Part Name
Q506		Transistor
Q215		Radio type transistor
Q203		Diode
Q237		Resistor
Q513		Capacitor (Polarized)
Q518		Capacitor (Non-polarized)

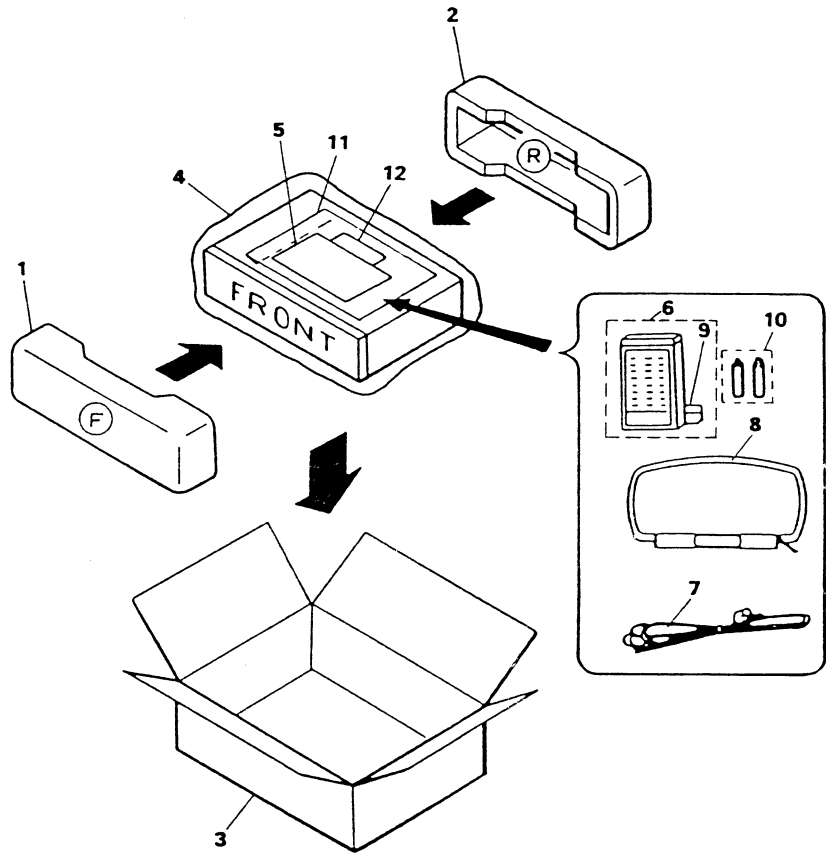
Other

PCB pattern diagram indication	Part Name
C	IC
S	Switch
RY	Relay
L	Coil
F	Fuse
VR	Variable capacitor (Semi-fixed capacitor)

1. The speaker terminals are indicated with the following symbols and wiring numbers.
2. The speaker terminals are indicated with the following symbols and wiring numbers.
3. The speaker terminals are indicated with the following symbols and wiring numbers.

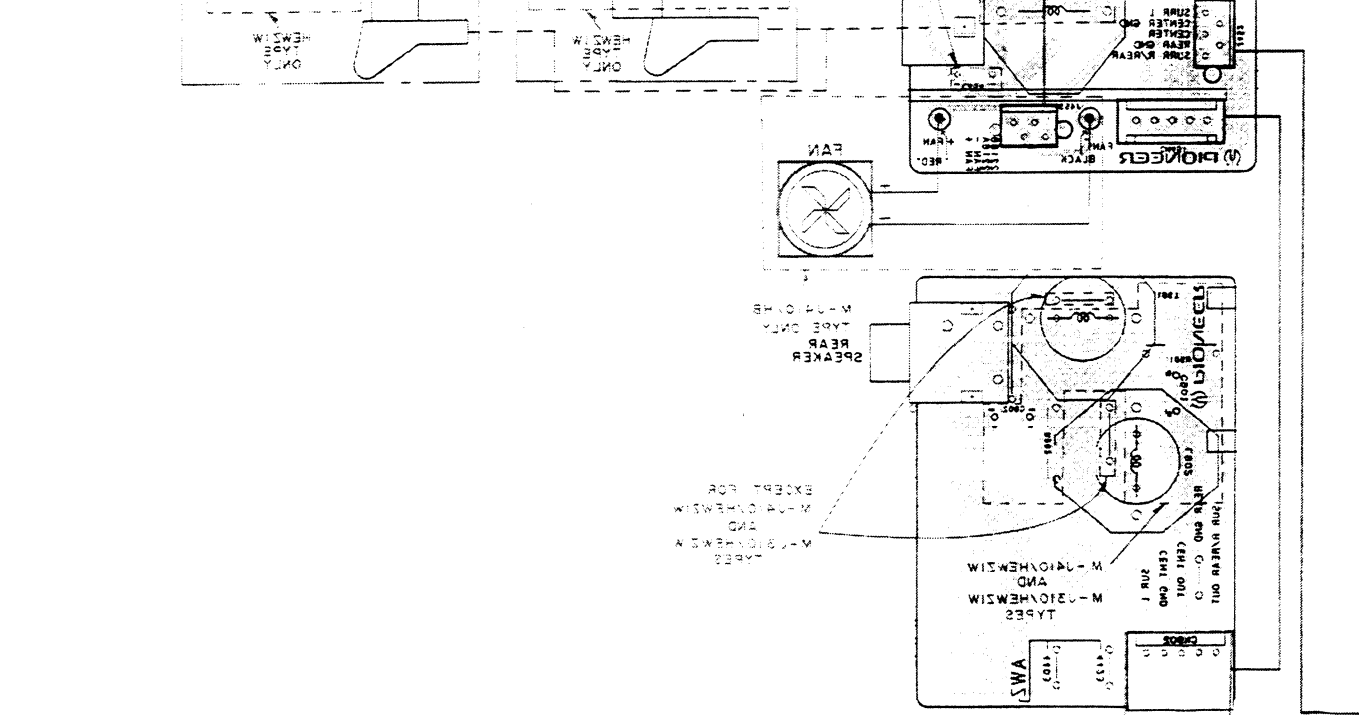
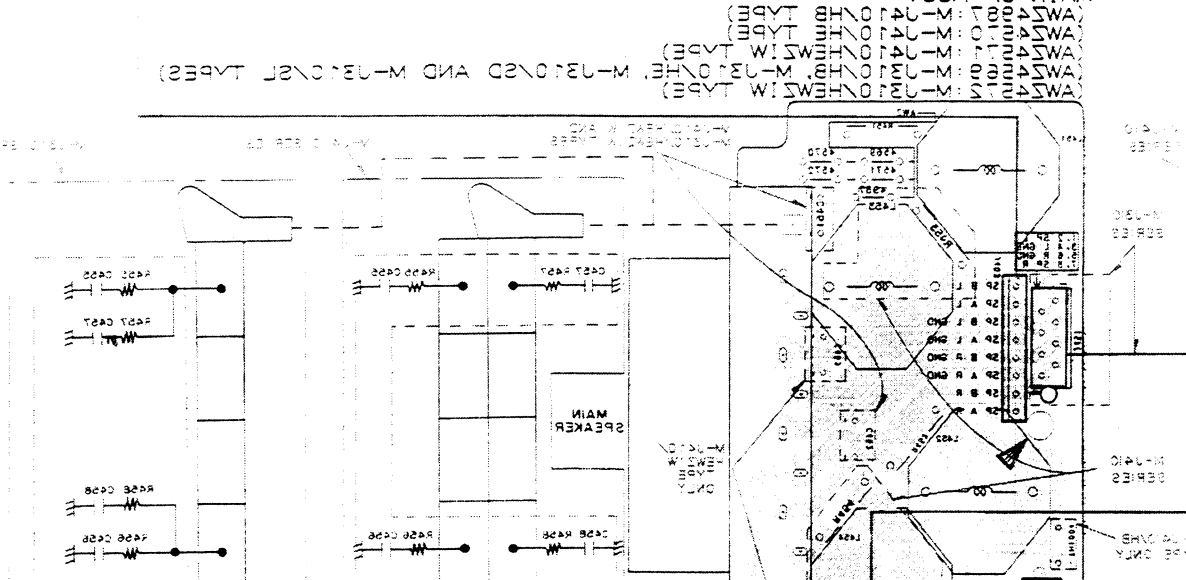
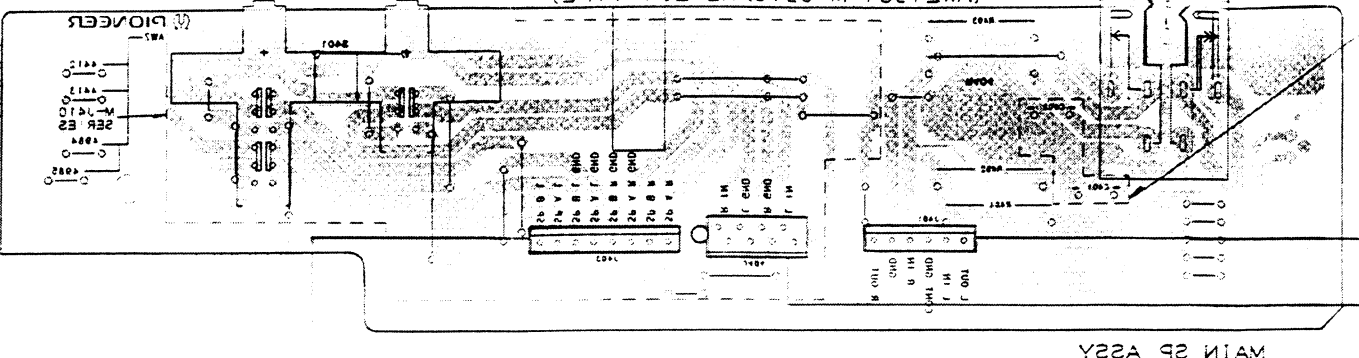
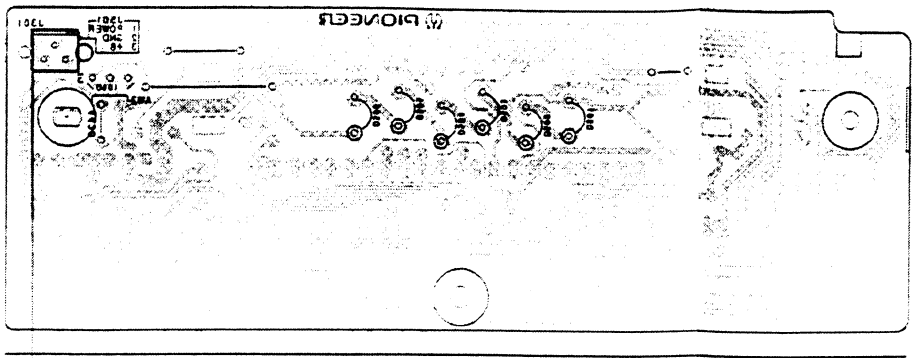
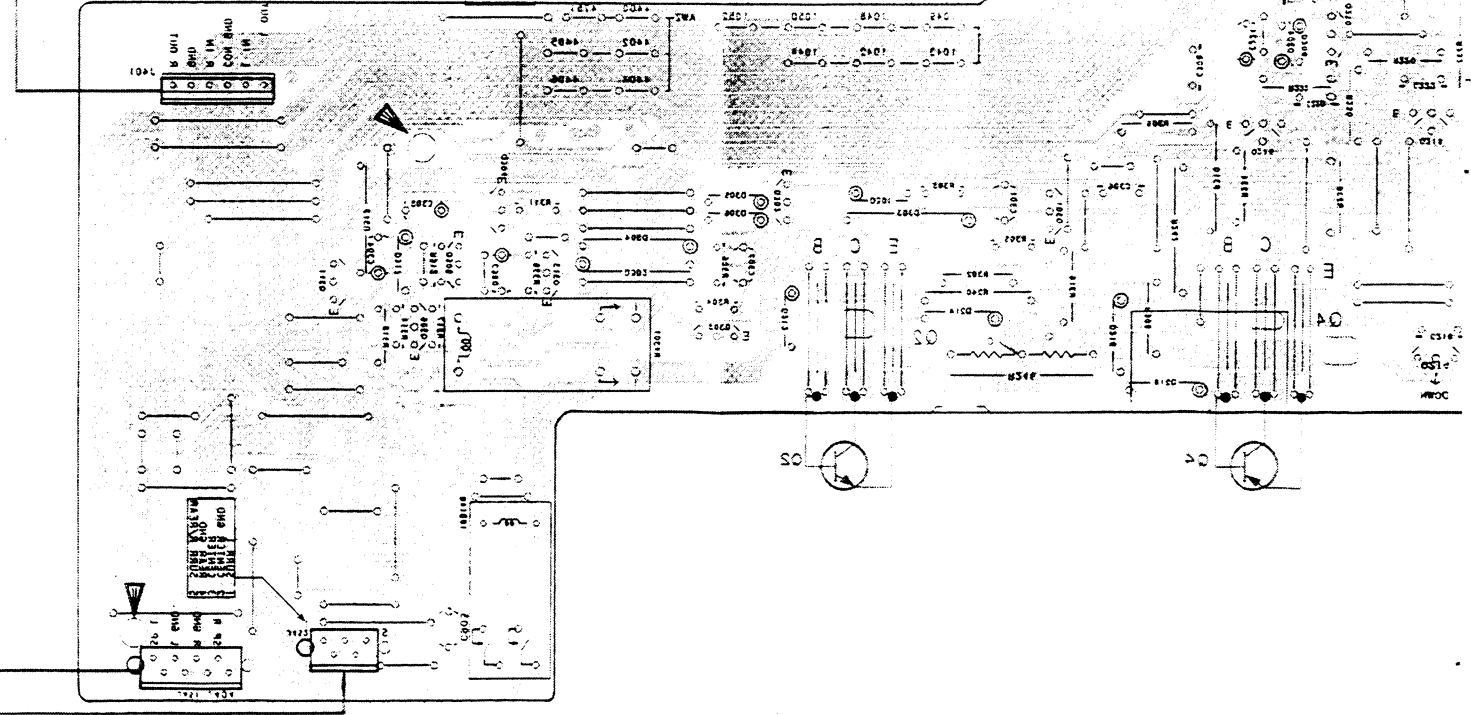
● Packing

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
1	Front pad	AHA1545	7	FM antenna	ADH1005
2	Rear pad	AHA1546	8	AM loop antenna assy	ATB1006
3	Packing case	AHD2488	9	Battery cover	AZN2234
4	Packing sheet	AHG1016	NSP 10	Battery (R03, AAA)	AEX-021
5	Operating instructions (English, French)	ARE1258	NSP 11	Literature bag	AHG-117
6	Remote control unit (CU-MJ005)	AXD1332	NSP 12	Warranty card	ARW-088



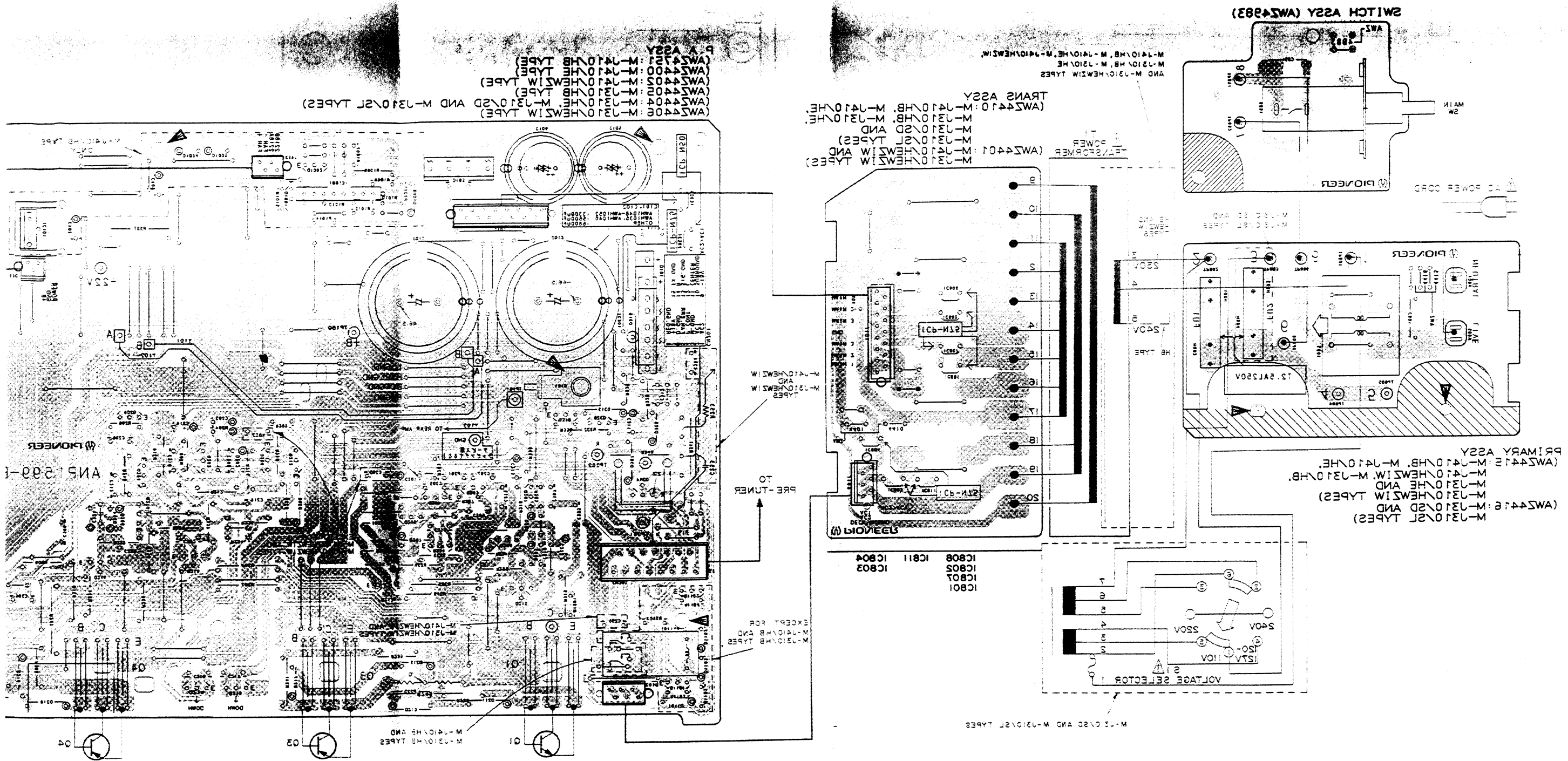
Pion 3954

1:4 0510 0504 0508 051E 1C101 0301 0305 0302 0312 0304 030E 0311
REAR SP ASSY (W44433: M-7410/HWS!W AND M-7310/HWS!W TYPES)
(W44403: M-7410/HWS!W AND M-7310/HWS!W TYPES)
REAR SP ASSY (W44403: M-7410/HWS!W AND M-7310/HWS!W TYPES)
REAR SP ASSY (W44403: M-7410/HWS!W AND M-7310/HWS!W TYPES)



3. PCB CONNECTION DIAGRAMS

This P.C.B. connection diagram is viewed from the foil side.



IC302	IC201	0314	0350	0310	0502	0511	0512	0513	0514	0515	0516	0517	0518	0519	0520	0521	0522	0523	0524	0525	0526	0527	0528	0529	0530	0531	0532	0533	0534	0535	0536	0537	0538	0539	0540	0541	0542	0543	0544	0545	0546	0547	0548	0549	0550	0551	0552	0553	0554	0555	0556	0557	0558	0559	0560	0561	0562	0563	0564	0565	0566	0567	0568	0569	0570	0571	0572	0573	0574	0575	0576	0577	0578	0579	0580	0581	0582	0583	0584	0585	0586	0587	0588	0589	0590	0591	0592	0593	0594	0595	0596	0597	0598	0599	0600	0601	0602	0603	0604	0605	0606	0607	0608	0609	0610	0611	0612	0613	0614	0615	0616	0617	0618	0619	0620	0621	0622	0623	0624	0625	0626	0627	0628	0629	0630	0631	0632	0633	0634	0635	0636	0637	0638	0639	0640	0641	0642	0643	0644	0645	0646	0647	0648	0649	0650	0651	0652	0653	0654	0655	0656	0657	0658	0659	0660	0661	0662	0663	0664	0665	0666	0667	0668	0669	0670	0671	0672	0673	0674	0675	0676	0677	0678	0679	0680	0681	0682	0683	0684	0685	0686	0687	0688	0689	0690	0691	0692	0693	0694	0695	0696	0697	0698	0699	0700	0701	0702	0703	0704	0705	0706	0707	0708	0709	0710	0711	0712	0713	0714	0715	0716	0717	0718	0719	0720	0721	0722	0723	0724	0725	0726	0727	0728	0729	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755	0756	0757	0758	0759	0760	0761	0762	0763	0764	0765	0766	0767	0768	0769	0770	0771	0772	0773	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785	0786	0787	0788	0789	0790	0791	0792	0793	0794	0795	0796	0797	0798	0799	0800	0801	0802	0803	0804	0805	0806	0807	0808	0809	0810	0811	0812	0813	0814	0815	0816	0817	0818	0819	0820	0821	0822	0823	0824	0825	0826	0827	0828	0829	0830	0831	0832	0833	0834	0835	0836	0837	0838	0839	0840	0841	0842	0843	0844	0845	0846	0847	0848	0849	0850	0851	0852	0853	0854	0855	0856	0857	0858	0859	0860	0861	0862	0863	0864	0865	0866	0867	0868	0869	0870	0871	0872	0873	0874	0875	0876	0877	0878	0879	0880	0881	0882	0883	0884	0885	0886	0887	0888	0889	0890	0891	0892	0893	0894	0895	0896	0897	0898	0899	0900	0901	0902	0903	0904	0905	0906	0907	0908	0909	0910	0911	0912	0913	0914	0915	0916	0917	0918	0919	0920	0921	0922	0923	0924	0925	0926	0927	0928	0929	0930	0931	0932	0933	0934	0935	0936	0937	0938	0939	0940	0941	0942	0943	0944	0945	0946	0947	0948	0949	0950	0951	0952	0953	0954	0955	0956	0957	0958	0959	0960	0961	0962	0963	0964	0965	0966	0967	0968	0969	0970	0971	0972	0973	0974	0975	0976	0977	0978	0979	0980	0981	0982	0983	0984	0985	0986	0987	0988	0989	0990	0991	0992	0993	0994	0995	0996	0997	0998	0999	1000
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4. PCB PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
 - When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω → 56 × 10 ¹ → 561	RD1/8PM	561J
47kΩ → 47 × 10 ³ → 473	RD1/4PS	473J
0.5Ω → 0R5	RN2H	0R5K
1Ω → 010	RS1P	010K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 × 10 ¹ → 5621	RN1/4PC	5621F
---------------------------------------	---------	-------

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
LIST OF ASSEMBLIES			DISPLAY ASSY		
⊙	REAR SP ASSY	AWZ4403	SEMICONDUCTORS		
⊙	TRANS ASSY	AWZ4410	Q501		RN1203
⊙	H.P ASSY	AWZ4413	D501-D506		AEL1122
⊙	PRIMARY ASSY	AWZ4415	P.A ASSY		
⊙	DISPLAY ASSY	AWZ4420	SEMICONDUCTORS		
⊙	P.A ASSY	AWZ4751	IC301,IC304,IC305		ICP-N75
⊙	SWITCH ASSY	AWZ4983	IC1001		M5223L
⊙	MAIN SP ASSY	AWZ4987	IC101		NJM7812FAS
REAR SP ASSY			Q305		2SA1048
OTHERS			Q209,Q210		2SA1145
	PIN JACK(2P)	AKB1126	Q217,Q218		2SA1306
TRANS ASSY			Q201-Q204,Q207,Q208		2SA992
SEMICONDUCTORS			Q306		2SC1845
IC801-IC804,IC807,IC808, IC811		ICP-N75	Q205,Q206,Q301,Q302		2SC2240
H.P ASSY			Q303,Q304,Q320,Q1002		2SC2458
SWITCHES			Q213,Q214		2SC2603
S401		ASG1049	Q211,Q212		2SC2705
RESISTORS			Q215,Q216		2SC3298
R401-R404		RS2LMF681J	Q314		2SD1913
OTHERS			Q311		RN1201
	JACK	AKN1010	Q310		RN1203
PRIMARY ASSY			Q313		RN2203
COILS, FILTERS			Q1001		XDC143ES
L801		ATF1006	D101		D5SB20F
CAPACITORS			D201-D208,D213,D214,		HSS104-02
C801 (0.01/AC400V)		ACG1002	D217,D218,D301-D307,		
			D1004,D1005		
			D317		HZ20EB
			D211,D212,D215,D216		HZ4.7EB
			D103		RB152
			D308		RD24ESB
			D315,D1006		RD5.1ESB
			D316		S5566

P.A ASSEMBLY

AWZ4400, AWZ4402 and AWZ4751 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4751	AWZ4400	AWZ4402	
	IC101	NJM7812FAS	.....	.....	
	IC1001	M5223L	.....	.....	
	Q1001	XDC143ES	.....	.....	
	Q1002	2SC2458	.....	.....	
	Q1101	.....	2SC2458	2SC2458	
	Q1102	.....	2SC1845	2SC1845	
	D1004, D1005	HSS104-02	.....	.....	
	D1006	RD5.1ESB	.....	.....	
	D1101	.....	HZ18EB	HZ18EB	
	D1102, D1103	.....	HSS104-02	HSS104-02	
	RY1101	.....	ASR1035	ASR1035	
	C107	CEAS4R7M50	.....	.....	
	C109	CEAS010M50	.....	.....	
	C203, C204	CQMA102J50	CQMA102J50	.....	
	C205, C207	CCPUSL470J50	CCPUSL470J50	CCDSL151J50	
	C206, C208	CCCSL470J50	CCCSL470J50	CCDSL151J50	
	C211, C212	CCCSL040C500	CCCSL040C500	CCCSL100D500	
	C253	.....	.....	CKDYX104M25	
	C254	.....	.....	CKDYB102K50	
	C255	.....	.....	CKDYB103K50	
	R253	.....	.....	RD1/8PM100J	
	R1007	RN1/4PC1001F	.....	.....	
	R1008	RD1/8PM221J	.....	.....	
	R1009	RD1/8PM224J	.....	.....	
	R1010	RD1/8PM562J	.....	.....	
	R1011	RN1/4PC5101F	.....	.....	
	R1012	RN1/4PC3301F	.....	.....	
	R1013	RN1/4PC1202F	.....	.....	
	R1014	RD1/8PM222J	.....	.....	
	R1015	RD1/8PM182J	.....	.....	
	R1101	.....	RD1/8PM102J	RD1/8PM102J	
	R1102	.....	RD1/8PM563J	RD1/8PM563J	
	R1103, R1104	.....	RD1/8PM103J	RD1/8PM103J	

MAIN SP ASSEMBLY

AWZ4570, AWZ4571 and AWZ4987 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4987	AWZ4570	AWZ4571	
	C451-C454	.....	.....	CQMXA103J100	
	C455-C458	.....	.....	CCDSL680J50	
	L451-L454	ATH1004	ATH1004	ATH1009	
	R451-R454	RD1/4PMFL100J	RD1/4PMFL100J	RD1/4PMFL101J	
	R455-R458	.....	.....	RD1/8PM100J	
	TH1001	NTH2218F	.....	.....	

REAR SP ASSEMBLY

AWZ4423 and AWZ4403 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4403	AWZ4423	
	L901, L902 C901, C902 R901, R902	..... ..... .....	ATH1009 CKDYB102K50 RD1/4PMFL101J	

TRANS ASSEMBLY

Although AWZ4401 and AWZ4410 are different in part number, they have the same service parts.

5.2 CONTRAST OF MISCELLANEOUS PARTS FOR M-J310/HB, HE, HEWZIW, SD AND SL

M-J310/HB, HE, HEWZIW, SD, SL and M-J410/HB have the same construction except for the following :

Mark	Symbol & Description	Part No.						Remarks
		M-J410 /HB	M-J310 /HB	M-J310 /HE	M-J310 /HEWZIW	M-J310 /SD	M-J310 /SL	
◎	PRIMARY assembly	AWZ4415	AWZ4415	AWZ4415	AWZ4415	AWZ4416	AWZ4416	Refer to 5.1 Refer to 5.1
◎	P.A assembly	AWZ4751	AWZ4405	AWZ4404	AWZ4406	AWZ4404	AWZ4404	
◎	H.P assembly	AWZ4413	AWZ4412	AWZ4412	AWZ4984	AWZ4412	AWZ4412	
◎	MAIN SP assembly	AWZ4987	AWZ4569	AWZ4569	AWZ4572	AWZ4569	AWZ4569	
◎	REAR SP assembly	AWZ4403	AWZ4403	AWZ4403	AWZ4423	AWZ4403	AWZ4403	
◎	TRANS assembly	AWZ4410	AWZ4410	AWZ4410	AWZ4401	AWZ4410	AWZ4410	
	Q1, Q2 Transistor	MSC3281	2SC3180N	2SC3180N	2SC3180N	2SC3180N	2SC3180N	
	Q3, Q4 Transistor	MSA1302	2SA1263N	2SA1263N	2SA1263N	2SA1263N	2SA1263N	
△	AC power cord	ADG1067	ADG1067	ADG1068	ADG1068	ADG1133	ADG1068	
△	FU1 Fuse (T2.5A/250V)	AEK-512	.....	.....	.....	.....	.....	
△	FU1 Fuse (T1.6A/250V)	.....	AEK-510	AEK-510	AEK-510	AEK-510	AEK-510	
△	FU2 Fuse (T1.6A/250V)	.....	.....	.....	.....	AEK-510	AEK-510	
△	Voltage selector	.....	.....	.....	.....	AKX-507	AKX-507	
△	T1 Power transformer	ATS1460	ATS1463	ATS1463	ATS1463	ATS1464	ATS1464	
NSP	SP change SW	AAD2339	.....	.....	.....	.....	.....	
NSP	SUB panel (PLS)	AAP1325	AAP1324	AAP1324	AAP1324	AAP1324	AAP1324	
NSP	Front panel (PLS)	AMB2047	AMB2046	AMB2046	AMB2046	AMB2046	AMB2046	
NSP	Rear panel(MTL)	ANC1952	ANC1948	ANC1949	ANC1950	ANC1951	ANC2056	
NSP	Reinforced plate	ANG1635	.....	.....	.....	.....	.....	

Mark	Symbol & Description	Part No.						Remarks
		M-J410 /HB	M-J310 /HB	1-J310 /HE	M-J310 /HEWZIW	M-J310 /SD	M-J310 /SL	
NSP	Heat Sink	ANH1401	ANH1423	ANH1423	ANH1423	ANH1423	ANH1423	
	Fan motor	AXM1013	.....	.....	.....	.....	.....	
	Screw	PPZ50P100FZK	.....	.....	.....	.....	.....	
	FM antenna	ADH1005	ADH1005	ADH1005	ADH1002	ADH1005	ADH1005	
	Packing case	AHD2488	AHD2486	AHD2486	AHD2486	AHD2487	AHD2524	
	Remote control unit (CU - MJ005)	AXD1332	.....	.....	.....	AXD1332	AXD1332	
	Remote control unit (CU - MJ004)	.....	AXD1331	AXD1331	AXD1331	.....	.....	
	Battery cover	AZN2234	AZN2234	AZN2234	AZN2234	AZN2237	AZN2234	
	Operating instructions (English, French)	ARE1258	ARE1258	ARE1258	.....	ARE1258	ARE1258	
	Operating instructions (German, Italian)	.....	.....	ARC1385	ARC1385	.....	.....	
	Operating instructions (Dutch, Swedish, Spanish, Portuguese)	.....	.....	ARC1387	.....	.....	.....	

PRIMARY ASSEMBLY

Although AWZ4416 and AWZ4415 are different in part number, they have the same service parts.

H.P ASSEMBLY

AWZ4412, AWZ4984 and AWZ4413 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4413	AWZ4412	AWZ4984	
	S401(Speaker A,B ON/OFF SW) C401, C402	ASG1049 .....	..... .....	..... CKDYB102K50	

MAIN SP ASSEMBLY

AWZ4569, AWZ4572 and AWZ4987 have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		AWZ4987	AWZ4569	AWZ4572	
	C451, C452	.....	.....	CQMXA103J100	
	C455 - C458	.....	.....	CCDSL680J50	
	L451, L452	ATH1004	ATH1004	ATH1009	
	L453, L454	ATH1004	.....	.....	
	R451, R452	RD1/4PMFL100J	RD1/4PMFL100J	RD1/4PMFL101J	
	R453, R454	RD1/4PMFL100J	.....	.....	
	R455 - R458	.....	.....	RD1/8PM100J	
	TH1001	NTH2218F	.....	.....	
	Speaker terminal	AKE-111	AKE-109	AKE-109	

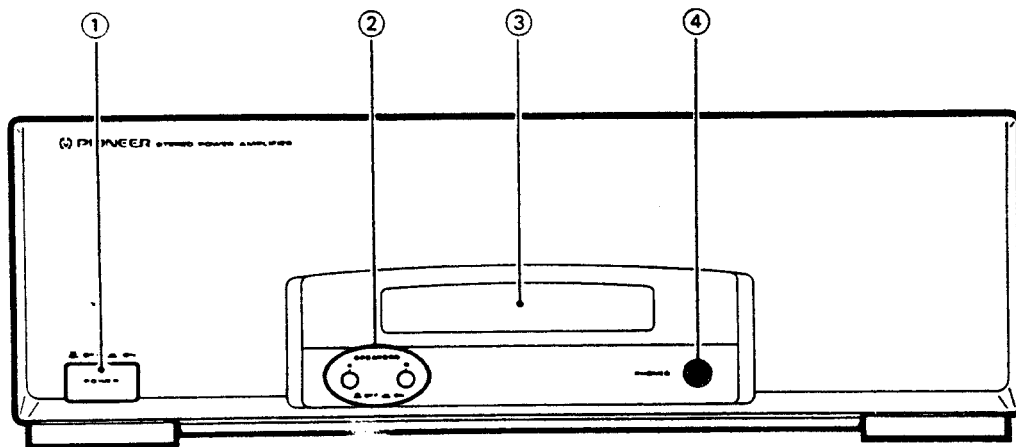
P.A ASSEMBLY

AWZ4405, AWZ4404, AWZ4406 and AWZ4751 have the same construction except for the following :

Mark	Symbol & Description	Part No.				Remarks
		AWZ4751	AWZ4405	AWZ4404	AWZ4406	
IC101		NJM7812FAS	.....	.....	.....	
IC1001		M5223L	.....	.....	.....	
Q1001		XDC143ES	.....	.....	.....	
Q1002		2SC2458	.....	.....	.....	
Q1101				2SC2458	2SC2458	
Q1102				2SC1845	2SC1845	
D101		D5SB20F	D3SBA20(A)	D3SBA20(A)	D3SBA20(A)	
D1004, D1005		HSS104-02	.....	.....	.....	
D1006		RD5.1ESB	.....	.....	.....	
D1101				HZ18EB	HZ18EB	
D1102, D1103				HSS104-02	HSS104-02	
RY1101				ASR1035	ASR1035	
C101, C102 (6800 μ /63V)		ACH1137	.....	.....	.....	
C101, C102 (3300 μ /50V)			ACH1017	ACH1017	ACH1017	
C107		CEAS4R7M50	.....	.....	.....	
C109		CEAS010M50	.....	.....	.....	
C203, C204		CQMA102J50	CQMA102J50	CQMA102J50	.....	
C205, C207		CCPUSL470J50	CCPUSL470J50	CCPUSL470J50	CCDSL151J50	
C206, C208		CCCSL470J50	CCCSL470J50	CCCSL470J50	CCDSL151J50	
C211, C212		CCCSL040C500	CCCSL040C500	CCCSL040C500	CCCSL100D500	
C253					CKDYX104M25	
C254					CKDYB102K50	
C255					CKDYB103K50	
R233		RD1/4PMFL101J	RFA1/4PL101J	RFA1/4PL101J	RFA1/4PL101J	
R253					RD1/8PM100J	
R1007		RN1/4PC1001F	.....	.....	.....	
R1008		RD1/8PM221J	.....	.....	.....	
R1009		RD1/8PM224J	.....	.....	.....	
R1010		RD1/8PM562J	.....	.....	.....	
R1011		RN1/4PC5101F	.....	.....	.....	
R1012		RN1/4PC3301F	.....	.....	.....	
R1013		RN1/4PC1202F	.....	.....	.....	
R1014		RD1/8PM222J	.....	.....	.....	
R1015		RD1/8PM182J	.....	.....	.....	
R1101				RD1/8PM102J	RD1/8PM102J	
R1102				RD1/8PM563J	RD1/8PM563J	
R1103, R1104				RD1/8PM103J	RD1/8PM103J	

6. PANEL FACILITIES

FRONT PANEL FACILITIES



* Illustration shows model M-J510.

STEREO POWER AMPLIFIER M-J310/i, M-J410/ M-J510

① POWER ON/OFF switch

This is the switch for electric power.

When the power is ON, the power indicator ③ lights.

Leave this power switch ON. To turn the system on and off, use tuner control amplifier's power switch.

② SPEAKERS buttons (M-J410, M-J510 only)

Speakers connected to the rear panel SPEAKERS A, B terminals can be switched ON/OFF independently.

NOTE:

When the speaker system is connected to only one speaker terminal (A or B) and both A and B buttons are ON, there will be no sound. Turn ON only the selector to which the speaker system is connected.

③ Power indicator

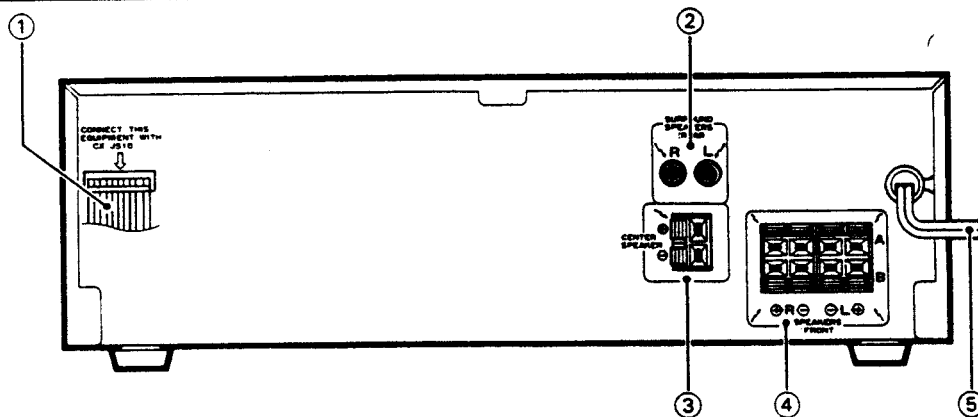
④ PHONES jack

For stereo headphones.

NOTE:

There is no output from the speakers when headphones are plugged into PHONES jack.

REAR PANEL FACILITIES



**STEREO POWER AMPLIFIER M-J310/M-J410/
M-J510**

* Illustration shows model M-J510.

① Tuner control amplifier system cable

Connect to the POWER AMP jack of the tuner control amplifier.

② SURROUND SPEAKERS jacks

Connect to the Surround speaker systems.

NOTE:

Connect a speaker system having a nominal impedance of 16 Ω or more.

③ CENTER SPEAKER terminal (M-J510, M-J410 Multi-voltage model only)

Connect to the center speaker.

NOTE:

Connect a speaker system having a nominal impedance ranging from 8 Ω to 16 Ω or more.

④ SPEAKERS terminals

A: Connect to a first set of speakers.

B: Connect to a second set of speakers. With M-J410 and M-J510 UK/
European models multi-room (subroom) speakers can be connected.
The M-J310 features only one set of speaker terminals.

NOTE:

Connect a speaker system having a nominal impedance ranging from 8 Ω to 16 Ω .

⑤ Power cord

Connect to the tuner control amplifier's AC OUTLETS.

7. SPECIFICATIONS

**STEREO POWER AMPLIFIER
M-J310/M-J410/M-J510**

[M-J310]

Continuous Power Output (DIN)

U.K., European models... 40 W + 40 W (1 kHz, T.H.D 1 %, 8 Ω)

Continuous Power Output (RMS)

Multivoltage model..... 50 W + 50 W (1 kHz, T.H.D 5 %, 8 Ω)

Total Harmonic Distortion (1 kHz, 20 W, 8 Ω) 0.1 % *

[M-J410]

Continuous Power Output (DIN)

U.K., European models... 80 W + 80 W (1 kHz, T.H.D 1 %, 8 Ω)

Continuous Power Output (RMS)

Multivoltage model

Front..... 70 W + 70 W (1 kHz, T.H.D 5 %, 8 Ω)

Rear..... 16 W (1 kHz, T.H.D 5 %, 8 Ω)

Center..... 16 W (1 kHz, T.H.D 5 %, 8 Ω)

Total Harmonic Distortion

U.K., European models (1 kHz, 40 W, 8 Ω)..... 0.1 % **

Multivoltage model (1 kHz, 35 W, 8 Ω)..... 0.1 % **

[M-J510]

Continuous Power Output (DIN)

U.K., European models

Front..... 80 W + 80 W (1 kHz, T.H.D 1 %, 8 Ω)

Rear..... 14 W (1 kHz, T.H.D 1 %, 8 Ω)

Center..... 14 W (1 kHz, T.H.D 1 %, 8 Ω)

Continuous Power Output (RMS)

Multivoltage model

Front..... 90 W + 90 W (1 kHz, T.H.D 5 %, 8 Ω)

Rear..... 16 W (1 kHz, T.H.D 5 %, 8 Ω)

Center..... 16 W (1 kHz, T.H.D 5 %, 8 Ω)

Total Harmonic Distortion (1 kHz, 40 W, 8 Ω) 0.1 % **

Power Supply/Miscellaneous

Power requirements

U.K. model..... a.c. 240 Volts ~, 50/60 Hz

European model..... a.c. 220 - 230 Volts ~, 50/60 Hz

Multivoltage model..... AC 110 V/120 - 127V/220 V/240 V
(switchable), 50/60 Hz

Power consumption

M-J310..... 180 W

M-J410

U.K., European models..... 300 W

Multivoltage model..... 320 W

M-J510..... 380 W

Dimensions

M-J310..... 360 (W) x 340 (D) x 121 (H) mm

M-J410, M-J510..... 360 (W) x 341 (D) x 121 (H) mm

Weight

M-J310..... 6.3 kg

M-J410..... 7.4 kg

M-J510..... 7.7 kg

Accessories

Operating instructions..... 1

Remote control unit..... 1

Dry cell batteries "AAA" (IEC R03/UM-4)..... 2

FM T-type Antenna..... 1

AM Loop Antenna..... 1

** Measured By Audio Spectrum Analyzer.